

Patent Claims

1. A use of an intumescent material as a sensor for a fire alarm.
2. A use of an intumescent material as an actuator of a fire alarm.
3. A use of an intumescent material as an actuator of a fire protection device.
4. The use of an intumescent material according to Claim 3, characterized in that the fire protection device is a door opener or a lock, and the intumescent material is operatively linked to at least one of the door opener components armature or latch and/or to at least one of the lock components latch, handle socket, bolt, or bolt drive.
5. A use of an intumescent material as a status documentation means of a current status of an element of a device in case of fire.
6. The use according to Claim 6, characterized in that the element whose status is to be documented in case of fire is at least partially covered or

completely enclosed by the intumescent material under the effect of heat.

7. An adjustment device in case of fire having at least two elements, whose relative position to one another is adjustable, characterized in that intumescent material is operatively linked to at least one of the elements in such way that the intumescent material changes the relative position through its shape change.

8. A fixing device having at least two elements, whose relative position to one another is adjustable, characterized in that an intumescent material is operatively linked to at least one of the elements in such way that the intumescent material fixes the relative position through its shape change.

9. The device according to Claim 7 or 8, characterized in that the intumescent material is operatively linked to the elements adjustable in relation to one another by its shape change.

10. The device according to one of Claim 7 through 9,  
characterized in that two elements adjustable in relation to  
one another are provided, one element being adjustable and  
the other element being fixed in position.
  
11. A lock/release device for use in a door or a window having at  
least one bolt,  
characterized in that an intumescent material is operatively  
linked to the bolt in such way that the intumescent material  
fixes the bolt in its current position through its shape change.
  
12. A lock/release device for use in a door or window having at  
least one bolt,  
characterized in that an intumescent material is operatively  
linked to the bolt in such way that the intumescent material  
moves the bolt into a predefined position (lock or release)  
through its shape change.
  
13. A lock/release device for use in a door opener, at least one  
armature and a latch being provided as elements adjustable in  
relation to one another,  
characterized in that an intumescent material is positioned in  
such way that its shape change changes and/or fixes the  
relative position of at least one adjustable element, and thus

brings the door opener into a predefined position and/or keeps it in a predefined position.

14. The lock/release device according to Claim 12 or 13, characterized in that the predefined position is a lock or a release position.
15. The device according to one of Claims 7 through 14, characterized in that the intumescent material is positioned on a rotation point of the adjustable element in the starting state.
16. The device according to one of Claims 7 through 15, characterized in that the intumescent material is positioned on a free end of the adjustable element in the starting state.
17. The device according to one of Claims 7 through 16, characterized in that the intumescent material is positioned inside a device housing to fill up the free space in the starting state.

18. The device according to Claim 17, characterized in that the intumescent material is positioned, as the element fixed in position, on a housing wall in proximity to the adjustable element in the starting state.
19. The device according to Claim 18, characterized in that the intumescent material is positioned in a recess of the housing wall in the starting state.
20. An immobilizing system for fire protection and smoke protection doors as well as fire protection and spoke protection windows, fire protection flaps, or smoke dispersal flaps, characterized in that the intumescent material actuates or triggers an immobilizing mechanism.